DOCUMENT RESUME

ED 095 081 SO 007 724

AUTHOR	Marinaccio, Louis M.
TITLE	Advanced Jewelry Design. Art Education: 6684.02.
INSTITUTION	Dade County Public Schools, Miami, Fla.
PUB DATE	72
NOTE	32p.; An authorized Course of Instruction for the Quinmester Program
EDRS PRICE	MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS	*Art Activities; *Art Education; Course Descriptions; Curriculum Guides; *Handicrafts; Resource Materials; Secondary Education; Teaching Techniques; *Visual Arts
IDENTIFIERS	Jewelry; *Quinmester Program

ABSTRACT

See SO 007 721 for an introduction to the Visual Arts Education Curriculum of which this course in jewelry design is a part. In the course students further skills in forming complex objects through experience with casting, bezeling stones, and welding. Course content includes an historical perspective on jewelry production and advanced methods in forming and decorating jewelry. Sections on evaluation of students with criteria for evaluation and on resources -- texts, periodicals, and reference books; local resources in Florida; films and slides; suppliers; and professional schools, universities and workshops specializing in jewelry -- conclude the guide. (JH)

ED 095081

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

BEST COPY AVAILABLE

AUTHORIZED COURSE OF INSTRUCTION FOR THE QUINMESTER PROGRAM

SP 007724

747

ART EDUCATION

Advanced Jewelry Design

6684.02

DADE COUNTY PUBLIC SCHOOLS

DIVISION OF INSTRUCTION • 1971

ED 095081

BEST COPY AVAILABLE

DADE COUNTY SCHOOL BOARD

Mr. William Lehman, Chairman
Mr. G. Holmes Braddock, Vice-Chairman
Mrs. Ethel Beckham
Mrs. Crutcher Harrison
Mrs. Anna Brenner Meyers
Dr. Ben Sheppard
Mr. William H. Turner

Dr. E. L. Whigham, Superintendent of Schools
Dade County Public Schools
Miami, Florida 33132

Published by the Dade County School Board

Copies of this publication may be obtained through

Textbook Services
2210 S. W. Third Street
Miami, Florida 33135

ADVANCED JEWELRY DESIGN
6684.02
6685.01
6686.01

ART EDUCATION

Written by: Louis M. Marinaccio

for the

Division of Instruction

Dade County Public Schools

Miami, Florida

1972

PREFACE

Learning has been referred to by many contemporary educators as a noun; but it is a verb experience--full of action and involvement, doing and being. At least it should be--and that kind of involved learning is what this course of study is all about.

The Quinmester Visual Arts Education Curriculum construct is a long range developmental effort directed towards providing a general education for learners in the aesthetically related art education field. To accomplish this goal, instructional courses of study have been developed basically for teachers by teachers. Many Dade art specialists in various arts media have been recruited by the Art Office to write over 75 new and innovative courses of study in the area of art education. Educational specialists from the four corners of this land, along with aestheticians, social critics, and behavioral scientists have hailed the philosophy of the overall art curriculum construct undertaken by the Division of Instruction to be consistent with the latest national trends in art education, and to be an exemplary example of "success" oriented curricula designed to provide intense involvement in aesthetics and creative arts through group and individualized participation on the part of the learner.

All courses of study produced have been constructed with one major goal in mind; to provide a broad framework of goals and objectives; content; instructional procedures and strategies; and suggested learning activities. Many of the technically oriented courses of study list a variety of "Work Sheets" designed to assist the learner with specific and highly technical studio procedures delineated in a manner so that art specialists (teachers) can use them "as is," or utilize the source information as a basis for producing "Learning Activities Packages." The appendix may include other pertinent material needed for today's contemporary art curriculum, e.g., vocabulary, resources for both learner and teacher, etc.

Constructive criticisms or recommendations relating to this publication are invited; please send to: Art Education Office, Room 300, Lindsey Hopkins, A-1.

Charles M. King, Consultant
Art Education

TABLE OF CONTENTS

I. COURSE TITLE 1

II. COURSE NUMBERS 1

III. COURSE DESCRIPTION 1

IV. RATIONALE 1

V. COURSE ENROLLMENT GUIDELINES 2

VI. COURSE OF STUDY OBJECTIVES 2

VII. COURSE CONTENT

A. Definition and background 2

B. Jewelry forming 4

C. Decorating 10

VIII. COURSE PROCEDURES AND STRATEGIES, AND SUGGESTED LEARNING ACTIVITIES

Evaluation 12

Suggested criteria established for evaluation 13

IX. RESOURCES

Suggested texts for pupils 16

Suggested periodicals for pupils 17

Suggested places to visit 18

Filmstrips 19

Slides 20

Professional schools, universities and workshops specializing in jewelry 21

Jewelry designers - resource people 24

Jewelry suppliers - general 25

- gem stones 26

X. BIBLIOGRAPHY 26

BEST COPY AVAILABLE

I. COURSE TITLE

Advanced Jewelry Design

II. COURSE NUMBERS

6604.02

6605.01

6686.01

III. COURSE DESCRIPTION

The student will develop further skill in forming more complex objects through advanced techniques and methods. Experience will be provided in casting, bezeling of stones, and welding. Students will work on individual interest areas and be encouraged to express their own individuality.

IV. RATIONALE

The art educator should foster the growth of what is unique in the individual and help him to develop a strong sense of empathy toward his visual environment; empathy toward the sensuous quality of the material; and empathy toward the content. There should be a kinesthetic interaction between the student and the media. Emphasis will be placed upon designing and forming more complex objects.

V. COURSE ENROLLMENT GUIDELINES

A. Grades 9-12

B. Suggested prerequisite: Jewelry Design I or Art Craft I.

VI. COURSE OF STUDY OBJECTIVES

A. Competencies: the student upon completion of this unit will be able to:

1. Identify the work of several outstanding contemporary jewelry designers
2. Differentiate between the characteristics of jewelry of the Ancient Near East and Asia
3. Demonstrate several advanced methods of forming jewelry
4. List the equipment and tools used in forging, casting and granulation
5. Demonstrate the decorative techniques of engraving, etching, repoussé, and chasing
6. Identify the basic tools used in decorating jewelry

VII. COURSE CONTENT

A. Definition and background

1. Historical

a. Egyptian

b. Ancient Near East

c. Asia

(1) India

(2) China

(3) Korea

(4) Japan

d. Classical

(1) Crete

(2) Greece

(3) Etrusca

(4) Rome

e. Byzantium (Rome)

f. Islam

g. Pre-Columbian

h. Renaissance in Europe

2. Contemporary

a. American Indian

b. Outstanding contemporary jewelry designers

(1) Leo Scherker

(2) Olaf Skoogfors

(3) John Paul Miller

(4) Stanley Lechtzin

(5) Jean Knutson

(6) F. Jules Reed

(7) John Prip

(8) Lillian F. Kalan

(9) Victor Ries

(10) Reinhold Reilling

(11) Arline Fisch

(12) Hans Krahmer

(13) Sigurd Perssons

(14) Friedrich Becker

(15) Thomas Gentille

(16) Elisabeth Treskow

(17) Robert Pierron

(18) Alice Boatright

(19) Frank Patania

c. Aesthetic Reactions and Movement

B. Jewelry forming

1. Advanced methods of forming

a. Bezeling

(1) Collar bezel

(2) Reverse bezel

(3) Square bezel

(4) Gypsy setting

(5) Faceted-stone setting

(6) Paved setting

(7) Pearl setting

b. Forging

(1) Annealing

(2) Forging on a block

(3) Forging on a stake

c. Casting

(1) Forming the wax model

(2) The investment

(3) Casting the model

(4) Removing the investment

(5) Finishing the pieces

d. Lost wax casting

e. Granulation

f. Electroforming

g. Combined methods

2. Selection of metals

a. Metal

b. Brass

c. Copper

d. Silver

e. Gold

f. Platinum

g. Stainless steel

h. Niello

i. Iron

3. Types of advanced jewelry forms
   a. Sawed pin with stone
   b. Fused pin with stone
   c. Filed pin with stone
   d. Rings with stone
   e. Split rings
   f. Chains
   g. Pendant with stone
   h. Necklaces
   i. Chokers
   j. Cuff links with stones
   k. Brooch with stones
   l. Bracelet
   m. Found objects
4. Forming more complex jewelry forms with mixed metals
5. Forming a pendant with stones set in collar bezels
6. Forming forged silver earrings
7. Forming a completed riveted pinstem and joint
8. Forging metal to various shapes by using the correct stakes
9. Forming jewelry by using the sand cast method
10. Creating jewelry by electroforming over a styrofoam matrix.

11. Creating a silver gilt pin with mica and pearls by electroforming over a matrix of wax

12. Creating jewelry by combining several methods

13. Creating a fused pin with several stones

14. Creating split rings with stones by granulation

15. Creating jewelry with found objects

16. Found object jewelry

    a. Cracked pottery

    b. Watch gears

    c. Watch crystals

    d. Broken glass

    e. Pieces of bone

    f. Shell

    g. Fiber

17. Equipment and tools

    Flat nosed pliers

    Diagonal cutting pliers

    Round nose pliers

    Tweezers

    Rawhide mallet

    Curved burnisher

    Needle point scriber

    Planishing hammer

Files:

a. 6-inch hand files

b. 6-inch halfround files

c. Needle files

Ring clamp

Saw frame and blades

Ring sizes

Ring mandrel

Bezel mandrel

Hand drill

Steel rules 6 inch length, marked in millimeters and inches

Flexible shaft machine

Beeswax

White casein

Sable brushes #6

Clear acrylic spray

Felt buffing stick

Emery cloth

Emery stick

Emery paper

Liner of sulfur

Findings

Heating frame

Charcoal block

Annealing pan

Propane gas torch unit

Solder

a. Metal

b. Metallic alloy

Flux

Yellow ochres

Iron binding wire

Sulfuric acid

Sparex

Dental wax

a. Sheets

b. Rods

Metal sprue cone

Liquid debubblizer

Sable brushes

Investments

Ring or flask of metal

Clay

Metal scribe

Assorted dental tools

Alcohol lamp

Alcohol

Flat metal edge

Kiln

Asbestos

Stilts

Steel tongs

Centrifugal machine

Galvanized sheet metal

Flattened piece of coat wire hanger

Powdered borax

Acetyline torch

Glass container

Metal bucket

Gum solution

Copper salt

Copper foil

Stainless steel tank

Steel stakes

Steel block

Flat face planishing hammer

C. Decorating

1. Advanced methods of decorating

a. Engraving

b. Filigree

c. Etching

d. Repousse

e. Inlaying

f. Chasing

g. Lamination

2. Equipment and tools

Gravers with wooden handle

a. Knife

b. Round

c. Flat

d. Liner

Shellac stick

Ring clamp

Scriber

White casein

Pitch (block)

Oilstone

Propane torch

Sable brushes

Nitric acid

Asphaltum

Copper pickling tongs

Sodium bicarbonate

Turpentine

Cloth

Chasing tools

Pitch

Pitch bowl

Leather collar

Chasing hammer

Turpentine

Cloth

VIII. COURSE PROCEDURES AND STRATEGIES, AND SUGGESTED LEARNING ACTIVITIES

A. Evaluation

It is essential to establish a criteria for evaluating the progress of the student in art experience. Evaluation in jewelry design cannot be rigid to the extent that it will inhibit creative expression. Creativity is unique and personal.

The product itself cannot be evaluated without taking into consideration the process the student experienced from inception to completion. In addition, evaluation must include evidence of the growth of the individual in relation to his attitude, interest, ability to complete a project, how well he can use his past experience toward problem solving, respect for his own ability and the rights of others.

Evaluation is of vital importance to the student's development. It helps to determine the growth of the student so that the teacher can further motivate and guide the student toward his fullest self-development, creativity and aesthetic growth.

B. The criteria established for evaluation will vary due to individual differences among students and teachers. Each teacher must determine his own goals and formulate standards for evaluation always keeping in mind that evaluation must be positive as well as constructive.

The following are some suggestions in setting up criteria for evaluation:

1. Has the student learned to evaluate his own jewelry as well as that of others with consideration to the sensuous quality of the material, form, and content?
2. Has the student designed the entire object with an awareness of space, form, movement, order, relationship of parts to the whole, and good color organization?

3. Has the student expressed his ideas creatively in the medium in an original and meaningful way?
4. Has the student developed a sensitivity to the material?
5. Does the student express his ideas and individuality in jewelry?
6. Has the student become aware that texture results from an interaction of the medium and the tools?
7. Is the student aware of the difference between tactile and visual textures?
8. Has the student become sensitive to the expressive qualities of the different jewelry materials and tools?
9. Is the student aware that improper use of materials and tools results in poorly constructed forms?
10. Is the student aware that variety can add interest to forms but too much can destroy it?
11. Does the student react empathically to the medium in terms of three-dimensional forms?
12. Is the student familiar with good jewelry of the past and present?

13. Is the student able to identify from contemporary jewelry designers the ways in which the craftsmen manipulate their tools and materials?
14. Has the student developed good work habits?
15. Has the student's behavior outside the art class improved as a result of his art experience?
16. Has the student developed a respect for his personal ability?
17. Has the student developed a respect for the rights of others?
18. Has the student acquired increased efficiency in handling materials and tools?
19. Has the student developed the ability to carry the project through to completion?
20. Has the student learned the firing process and how to use it to its fullest advantage?
21. Has the student developed good craftsmanship and yet retained the natural qualities of the metal?
22. Has the student learned to form jewelry correctly so it does not warp or crack?

23. Is the product suited for the purpose for which it was made?

24. Does it incorporate the principles of good jewelry design?

25. Is the product the one best suited for work in metal?

26. Is the product well constructed?

27. Does the product indicate individuality and expressive quality?

28. Does the design fit the form?

29. Has the student improved in attitude, interests, and development of technical skills?

IX. RESOURCES

A. Suggested texts for pupils

Baerwald, Marcus and Mahoney, Tom, Gems and Jewelry Today. New York: Marcel Rodd Co., 1949.

Baxter, William, Jewelry, Gem Cutting, and Metal Craft. New York: McGraw-Hill, 1950

Bradford, Ernest, Four Centuries of European Jewelry. New York: Philosophical Library, 1953.

Choate, Sharr, Creative Casting, Jewelry, Sculpture. New York: Crown Publishers, 1966.

Crawford, Thomas, Introducing Jewelry Making. New York: Watson-Guptill, 1968.

Dali, Salvador, A Study of His Art in Jewels. The Graphic Society, 1959.

Darling, A., Antique Jewelry. New York: Century House, 1953.

Evans, Joan, A History of Jewelry, 1100-1870. New York: Pitman Publishing Co., 1953.

Gentille, Thomas, Step-by-Step Jewelry. New York: Golden Press, 1968.

Greek and Etruscan Jewelry. New York: Metropolitan Museum of Art, 1924.

Higgins, Reynold, Alleyne, Greek and Roman Jewelry. London: Methuen and Co., Ltd., 1961.

Huyghes, Graham, Modern Jewelry. New York: Crown Publishers, 1963.

Newble, Brian, Practical Enameling and Jewelry Work. New York: Viking Press, 1967.

Stevens, R. W., Simple Jewelry. New York: Watson-Guptill, 1966.

Von Neumann, Robert, The Design and Creation of Jewelry. Philadelphia: Chilton Book Co., 1961

B. Suggested periodicals for pupils

Craft Horizons
29 West 53rd Street
New York, N. Y. 10019

School Arts
50 Portland Street
Worcester, Mass. 01608

Design Quarterly
1710 Lyndale Avenue
Minneapolis 3, Minn.

C. Suggested places to visit

Grove House School of Art
3496 Main Highway
Coconut Grove, Fla. 33133

Village Corner Gallery
1136 South Dixie Highway
Coral Gables, Florida

Lowe Art Museum
1301 Miller Drive
Coral Gables, Florida

Miami Art Center
7867 North Kendall Drive
Kendall, Florida

Ceramic League of Miami
7867 North Kendall Drive
Kendall, Florida

Miami Museum of Modern Art
381 N. E. 20th Street
Miami, Florida

Grove House Gallery
3946 Main Highway
Coconut Grove, Florida

Museum of Science-Planetarium
3820 South Miami Avenue
Miami, Florida

Fairchild Tropical Garden
10901 Old Cutler Road
Coral Gables, Florida

Fantastic Gardens
9550 S. W. 67th Avenue
Miami, Florida

Miami Seaquarium
Rickenbacker Causeway
Virginia Key, Florida

Crandon Park Zoo
Key Biscayne, Florida

Scholastic Art Awards Exhibition
Burdine's Department Store
22 East Flagler Street
Miami, Florida

Miami Studio Shop
2363 West Flagler Street
Miami, Florida

Bass Museum of Art
2100 Collins Avenue
Miami Beach, Florida

Japanese Gardens
MacArthur Causeway
Miami, Florida

Vizcaya Art Museum
3251 South Miami Avenue
Miami, Florida

D. Suggested media resources for pupils and teachers

1. Film strips

Scholastic Film Strips
906 Sylvan Avenue
Englewood Cliffs, N. J. 07632

Art by Talented Teen-Agers-1970: Sculpture and other Three-Dimensional Art

Art by Talented Teen-Agers-1969: Sculpture and other Three-Dimensional Art

Art by Talented Teen-Agers-1968: Sculpture and other Three-Dimensional Art

Art by Talented Teen-Agers-1967: Sculpture and other Three-Dimensional Art

Art by Talented Teen-Agers-1961-1966: Sculpture and other Three-Dimensional Art

Collected Works of Teen-Age Art-Sculpture and other Three-Dimensional Art

7. Slides

American Crafts Council
Research and Education Dept.
22 West 53rd Street
New York, N. Y. 10019

C14 Young Americans, 1969 - Winning entries in all craft media from the national competition of this title sponsored by the American Crafts Council.

C9 Objects Are . . .? 1968 - An exhibition which sought to question the nature of objects. Covers work by 42 craftsmen in various media.

B14 Craftsmen U.S.A. '66 - National Merit Awards in a competition sponsored by the American Crafts Council; covers all craft media.

B1 The American Craftsmen, 1964 - 30 craftsmen and their work in clay, metal, wood, and textiles.

F5 Three Metalsmiths: Fisch/Kington/Skoogfors, 1968 - Jewelry and metal objects from one man exhibitions at M.C.C.

B52 Creative Casting-1963 - Metal cast objects by American craftsmen during the periods 1960-63.

F2 General Metal, 1969 - Jewelry, metal sculpture and objects by contemporary American metalsmiths.

F13 Goldsmith '70 - Metal work selected in an international competition.

C15 Silver Design Competition, 1967 - Three years of winning designs in the Sterling Design Competitions sponsored by the Sterling Silversmiths Guild of America.

D11 General Jewelry, 1966 - Works by American craftsmen of the early 1960's.

B5 Creative Casting, 1963 - William Underhill photographed making of a bronze bowl and pin by the lost wax process.

A13 Young Americans, 1962 - Winning entries in all craft media from the national competition of this title sponsored by the American Crafts Council.

F4 Objects U.S.A., 1969 - A selection of work in all media from the Johnson Collection of Contemporary Crafts.

B12 Folk Art of North India, 1966 - Ceramics, embroidery, appliqué, and jewelry from North India.

E. Professional schools, universities, and workshops specializing in jewelry

Troy State College
Troy, Alabama

Northern Arizona University
Flagstaff, Arizona

Arkansas Arts Center
School of Art and Drama
MacArthur Park
Little Rock, Arkansas

University of California
Department of Design
234 Wurster Hall
Berkeley, California

University of California
Davis, California

Mills College
Oakland, California

San José State College
San José, California

California College of Arts & Crafts
5212 Broadway at College Avenue
Oakland, California

University of Colorado
School of Art
Denver, Colorado

The Corcoran School of Art
17th St. at New York Ave., N. W.
Washington, D. C.

Georgia State College
33 Gilmer Street, S. E.
Atlanta, Georgia

School of the Art Institute of Chicago
Michigan at Adams
Chicago, Illinois

University of Illinois
College of Fine & Applied Arts
143 Fine Arts Building
Urbana, Illinois

Indiana University
Fine Arts Building
Bloomington, Indiana

Indiana State University
Terre Haute, Indiana

Wichita Art Association
9112 East Central
Wichita, Kansas

Louisville Art Center School
2111 South First Street
Louisville, Kentucky

Newcomb College Art Department of
Tulane University
New Orleans, Louisiana

Haystack Mountain School of Crafts
Deer Isle, Maine

Boston Museum School
230 Fenway
Boston, Massachusetts

Cranbrook Academy of Art
55 Lone Pine Road
Bloomfield Hills, Michigan

Rochester Art Center
320 East Center
Rochester, Minnesota

University of Missouri
Department of Art
Columbia, Missouri

University of Montana
Art Department
Missoula, Montana

University of New Hampshire
Department of the Arts
Durham, New Hampshire

Newark Museum of Art
43-49 Washington Street
Newark, New Jersey

State University of New York

Alfred University
Alfred, New York

Brooklyn Museum Art School
Eastern Parkway
Brooklyn, New York

Craft Students League
640 Eighth Avenue
New York, N. Y.

The New School for Social Research
66 West 12th Street
New York, N. Y.

School for American Craftsmen
Rochester Institute of Technology
65 Plymouth Avenue, South
Rochester, New York

Syracuse University
School of Art
309 University Place
Syracuse, New York

Penland School of Crafts
Penland, North Carolina

Cleveland Institute of Art
11141 East Boulevard
Cleveland, Ohio

Ohio University
Athens, Ohio

Millersville State College
Millersville, Pennsylvania

Rhode Island School of Design
Providence, Rhode Island

Museum School of Art of Houston
1001 Bissonnett
Houston, Texas

Stout State University
Menomonie, Wisconsin

Wisconsin State University
River Falls, Wisconsin

F. Jewelry Designers - Resource People

Leo Scherker
1136 S. Dixie Highway
Coral Gables, Florida

Lee Alper
1227 N. Flagler St.
Miami, Florida

Joe Dean
136 N. E. First Street
Miami, Florida

Ilona Sigri
117 N. E. First Avenue
Miami, Florida

Elva Pacheco
5138 Biscayne Boulevard
Miami, Florida

Martin King
407 Lincoln Road
Miami Beach, Florida

Vincent Portera
117 N. E. First Avenue
Miami, Florida

Lawrence Bril
5138 Biscayne Blvd.
Miami, Florida

Anthony Puccio
11630 N. E. Second Avenue
Miami, Florida

G. Jewelry Suppliers

1. General

Craftool, Inc.
One Industrial Road
Woodridge, N.J.

Rock and Shell Shop
2036 S. W. 57 Ave.
Miami, Fla.

C. W. Somers & Co.
387 Washington Street
Boston 8, Mass.

Allcraft Tool & Supply Co., Inc.
15 West 45th St.
New York, N. Y. 10036

Anchor Tool & Supply Co., Inc.
12 John St.
New York, N. Y. 10038

Jewelcraft Supply Co.,
P. O. Box 228
426 Marion St.
Oceanside, N. Y. 11572

7. Gem stones

William J. Orkin, Inc.
373 Washington St.
Boston 8, Mass

Sam Kramer
29 West 8th St.
New York, N. Y.

Craftool, Inc.
One Industrial Road
Woodridge, N. J.

S. Schweitzer and Co.
Dept. H., P. O. Box 71
Gedney Station
White Plains, N. Y. 10605

Ernest W. Bussinger
402 Clark Bldg.
Pittsburgh 22, Pa.

John Barry Co.
Dept. C., P. O. Box 15
Detroit, Michigan 48231

Rock and Shell Shop
2036 S. W. 57 Ave.
Miami, Fla.

X. BIBLIOGRAPHY

Baxter, William, Jewelry, Gem Cutting, and Metal Craft. New York: McGraw-Hill, 1950.

Choate, Sharr, Creative Casting, Jewelry, Sculpture. New York: Crown, 1966.

Crawford, Thomas, Introducing Jewelry Making. New York: Watson-Guptill, 1968.

Dali, Salvador, A Study of His Art in Jewels. New New York: The Graphic Society, 1959.

Evans, Joan, A History of Jewelry, 1100-1870. New York: Pitman, 1953.

Gentille, Thomas, Step-by-Step Jewelry. New York: Golden Press, 1968.

Greek and Etruscan Jewelry. New York: Metropolitan Museum of Art, 1944.

Higgins, Reynold, Alleyne, Greek and Roman Jewelry. London: Methuen and Co., Ltd. 1961.

Huyghes, Graham, Modern Jewelry. New York: Crown, 1963.

Laves, Klares, Jewelry Making for the Amateur. New York: Rheinhold, 1965.

Newble, Brian, Practical Enameling and Jewelry Work. New York: Viking, 1967.

Stevens, K. W., Simple Jewelry. New York: Watson-Guptill, 1966.

Von Neumann, Robert, The Design and Creation of Jewelry. Philadelphia: Chilton, 1961.

Winebrenner, Kenneth D., Jewelry Making, as an Art Expression. Scranton: International, 1953.